Comment Letter O047

O047

American Farmland Trust

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Critique of California High Speed Train System
Draft Environmental Impact Report

August 31, 2004

The California High Speed Rail Authority (Authority) proposes a high speed train system that would link Los Angeles, Sacramento and the Bay Area via the Central Valley.[1] The Authority has prepared and invited comments on a Draft Environmental Impact Report (DEIR) for this project, which are due August 31, 2004. American Farmland Trust respectfully submits and asks consideration of this critique of the DEIR. We would also call the attention of state and local policy makers to the perspective it offers on future growth and development in the Central Valley.

American Farmland Trust (AFT) is the nation's leading agricultural conservation organization. It works with farmers, policy makers and other organizations to promote policies that will minimize conversion of the most productive farmland and to encourage farming practices that are environmentally friendly. AFT has had an office in California since 1983 and now has approximately 3,500 members in the state.[2]

AFT's interest in the high speed train (HST) project stems from its potential impact on farmland and agriculture in the Central Valley.[3] The Valley was identified by AFT's 1987 *Farming on the Edge* research as the most productive and threatened agricultural resource in the United States. AFT's 1995 study *Alternatives for Future Urban Growth in California's Central Valley: The Bottom Line for Agriculture and Taxpayers* (1995) documented the consequences of sprawl and the benefits of more compact, efficient development in the Valley, concluding that a much more aggressive effort to combat sprawl must be made to protect agriculture and avoid a crippling public tax burden.

DEIR Critique in a Nutshell

By dramatically reducing travel times between and among communities in the Central Valley and the state's major population and employment centers, the HST will almost certainly stimulate enormous growth and development in the Valley. Properly guided, this growth could create tremendous economic opportunity for a region that has lagged behind much of California. But, without proper guidance, development could transform the Central Valley into another version of the Los Angeles Basin, with urban sprawl supplanting much of its agricultural land and virtually wiping out production agriculture.

[1] For project details, see www.cahighspeedrail.ca.gov
[2] For more information, see, www.farmland.org/California/index.htm
[3] Throughout these comments, we define the Central Valley to include the 10 counties considered in the DEIR: Fresno, Kern, Kings, Madera, Merced, Sacramento, San Joaquin, Stanislaus, Tulare and Yolo.

The DEIR concludes without sufficient evidence that HST will have virtually no impact on population growth in the Central Valley, compared with the no-project alternative. This simply defies credibility. The Authority's own advertising promises that HST will bring a "new California Gold Rush" and, judging from the turnout of civic boosters at the hearings held by the Authority, local officials and businesses also expect the HST to be a boon to their communities.

The DEIR dramatically underestimates the potential conversion of farmland to non-agricultural use. It assumes that the density of future development in the Central Valley will be much higher than both recent trends and county general plans indicate. It also ignores the very real phenomenon of "ranchette" development scattered throughout the Valley.

The DEIR does not adequately address the potential disruption of agricultural operations by conflicts with new urban development, by the severance of farm properties and transportation routes by the rail right-of-way itself, and by the increased urban competition for water now used for irrigation.

The DEIR fails to propose adequate mitigation for these impacts. The Authority's own consultant, Cambridge Systematics, Inc. (CSI), suggests that the HST could be a "potent tool for encouraging more compact development patterns."[4] The DEIR seems to assume that this will happen automatically. But the evidence suggests that it won't occur unless county and city plans and land use policies are changed to encourage more efficient land uses. Explicitly linking the construction of HST to stronger state and local smart growth policies is a mitigation strategy that definitely should be evaluated.

The Impact of HST on Central Valley Population Growth

There is little doubt that the population of the Central Valley will grow significantly in the coming decades – with or without HST service. In *Alternatives for Future Urban Growth*, AFT itself relied on population forecasts by the California Department of Finance (DOF) that predicted a tripling of the region's population by 2040. But, to our knowledge, DOF did not consider the impact that HST service might have in coming up with its projections.

Common sense would suggest that a futuristic transportation system, bringing virtually the entire San Joaquin Valley within easy commuting distance of the Bay Area and much of Southern California, would attract significantly more people to the Valley. The DEIR itself acknowledges that "Transportation investments can lead to reduced travel time or cost [and] improved accessibility to regions. These effects contribute to economic growth … attracting businesses and residents to places with increased accessibility." (DEIR, p. 5-1)

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Yet, astonishingly, the DEIR concludes that, despite making it possible for people to travel from, say, Fresno to Los Angeles in about an hour, HST will attract only 2.5

[4] *Economic Effects of the System Alternatives for the Program*, CSI 2003, p.1-7.

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percent more people (162,000) to the Central Valley than would otherwise come to live there (6.48 million) by the year 2035. (DEIR Table 5.3-5, p. 5-15) This conclusion is simply not believable.

DEIR Population Forecasts for 10 Central Valley Counties

Current Population 2002	2,499,216
Projected Population 2035	
With HST	9,138,284
Without HST	8,975,634
Population Increase 2002-2035	
With HST	6,639,068
Without HST	6,476,418
Difference Made by HST	162,650
Percentage Difference	2.5%

The DEIR does not clearly document how it reached its conclusion. It does reveal, however, that the analysis on which it relied "suggest[s] that the additional population growth under the HST Alternative is driven by internal job growth [in the Central Valley] … related to initiation of HST service, rather than by potential population shifts from the Bay Area and Southern California accompanied by long-distance commuting." (DEIR, p. 5-17)

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This, too, is unbelievable. Already, there are substantial numbers of people who live in the Valley and commute to the Bay Area.[5] We challenge the Authority to explain exactly how this trend would be mitigated or reversed *after* HST service makes the commute much easier.

The DEIR also does not acknowledge the margin of error in its population distribution projections. The report of consultant CSI explains, "While the exact role of particular factors varies by region, several influences are consistently important, including proximity to freeways, access to jobs, site slope and site incorporation status. To the extent that these factors are less important in the future, or are important in different ways – or, as is even more likely, that other factors become important – the model results will *vary widely* than [sic] what is presented here." [Emphasis supplied.] (CSI, at H-4)

The Impact of HST Induced Development on Farmland and Agriculture

Even if we assume that the population projections of the DEIR are accurate, the potential impact of the development that would accompany HST on farmland and agriculture appears to be very significant – perhaps ruinous. The DEIR concludes that growth and development under the HST base case alternative will result in the urbanization of

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[5] In 1996, an estimated 31,000 people commuted from the Central Valley to Santa Clara County in the Bay Area. San Francisco Chronicle, "Altamont Rail Plan on Track," Dec. 2, 1996.

447,995 acres of land in the Central Valley by 2035.[6] (DEIR, Table 5.3-6, p. 5-20; CSI, Table 5.2, p. 5-3). But this almost certainly underestimates the impact of HST because it relies on many assumptions that are at best questionable and at worst simply wrong.

The DEIR presents tables both for anticipated population growth (Table 5.3-5, p. 5-15) and for future urbanization of land (Table 5.3-6, p. 5-20). But the DEIR does not explicitly present any information about the density of future development (people per acre) that it presumably used to derive urbanized acres from the number of new people.[7] The figures in the tables imply, however, that future development in the Valley will have to occur at 8.7 people per acre between 2002 and 2035 to accommodate the anticipated population within the urbanized area projected by the DEIR.[8]

The density used by the DEIR to calculate future urbanization approximates those now found in the Bay Area and Southern California, but is 18 percent higher than the current density of development in the Central Valley, 7.3 people per acre.[9] The DEIR, relying on the CSI report, attempts to justify the higher figure by invoking economic theory and citing recent trends toward higher density.

The theory, as articulated by CSI, is that "It is an axiom of economics that scarce resources are used more intensely than plentiful ones. Following this logic, as available supplies of developable land are used up, developers seek ways to use remaining land more intensely, either by increasing densities or through redevelopment. Thus, both development densities and infill activity should increase with population growth."[10] (CSI, p. H-5)

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The problem with applying this theory to the Central Valley is that developable land in that region is anything but scarce. Right now, the general plans of the 10 counties

[6] See Table 1 in the Appendix to this critique for county and Valley-wide figures. The DEIR also estimates that 303,200 acres of "farmland" will be developed in the Central Valley during the same period. (DEIR, Table 5.4-1, p. 5-28) No independent documentation is offered for this conclusion. The only way this figure can be reconciled with the DEIR's urbanization figure is if more than *one-third* of the land developed in the Central Valley counties is *not* farmland. Yet, because the eastern side of the Valley where the HST line would be located is today almost entirely productive farmland, it is difficult to imagine how this could occur. Thus, we use the larger urbanization figures for purposes of our critique.

[7] The CSI report on which the DEIR is based says that it used the "marginal" density of development between 1988 and 1998, based on population figures from the Department of Finance and urbanized acreage figures from the Department of Conservation's Farmland Monitoring and Mapping Program (FMMP). But these figures are not included in the report. (CSI, p. H-4)

[8] See Table 1 in the Appendix to this critique for county and Valley-wide figures.

[9] See Table 2 in the Appendix. All density figures used herein are "gross" in that they are the product of dividing the total population by the total amount of urbanized land, regardless of whether it is used for commercial, industrial, institutional or residential purposes. This is the way the DEIR calculates density and, so, for comparability is used throughout this critique except for Table 9.

[10] CSI also issued a caveat that is nowhere reflected in the DEIR: "Counteracting this tendency [toward higher density] is the desire of many residents to preserve a rural or suburban lifestyle. Thus, there are many parts of California where infill activity and development densities are below what theory suggests they should be." (CSI, p. H-5)

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included in the DEIR analysis designate more than 2.5 million acres of land for future development.[11] Much of this is zoned for residential lots of 2 acres or greater in size.

Nor are recent trends toward higher density in the Central Valley as dramatic as the DEIR suggests. The DEIR cites the findings of a report, *Raising the Roof: California Housing Development Projections and Constraints, 1997-2000*, done for the California Department of Housing and Community Development, to the effect that residential densities increased between 50% and 585% in nine counties between 1984 and 1996. (DEIR, p. 5-12, fn. 7) But only four of those counties (Kings, Merced, Stanislaus and Yolo) are in the Central Valley, their average density in 1996 was only 6.7 people per acre, the average increase in their density from 1984 was only 3 percent (0.2 people acre) and in two of the counties (Kings and Merced) density actually declined.[12]

CSI says that it used the density of development between 1988 and 1998 to calculate future urbanization of land. (CSI, H-3) As noted above, this density would have had to be 8.7 people per acre for the Valley as a whole to arrive at the urbanized acreage in the DEIR based on its projected population increase. In contrast, the density of development for a more recent, comparable period, 1990-2000, based on the same DOF and FMMP figures used by CSI, was only 7.4 people per acre.[13]

Perhaps CSI somehow manipulated the 1988-1998 data, or introduced additional assumptions that are not apparent in its report, to generate a higher density figure for purposes of calculating land urbanization in the DEIR. But the 1990-2000 "marginal" density is much closer to the 1990 density in the Valley (7.3) and, thus, appears to be much more realistic than the figure apparently used by CSI. If the 1990-2000 density is used to calculate the land that would be urbanized in 2035 under the HST scenario, the total urbanized land in the Valley would be 561,681 – 83,686 (or 18%) more than the DEIR projection.[14]

But there is a further problem with the approach that CSI and the DEIR took to projecting urbanization. It is based on the assumption that everyone in the Central Valley lives in urbanized areas, i.e., within cities that are relative compact and contiguous. However, according to the U.S. Census, in 2000 about 484,000 people, or 11 percent of the total population of the Valley, lived in rural areas outside cities.[15] And, with the exception of the farm population (approximately 77,000 in 1990, the latest year for which figures are available), these exurbanites tend to live on large residential lots and "ranchettes" that are

[11] See Table 3 in the Appendix. Data are from the Information Center for the Environment, U.C. Davis, compiled for the Resource Agency's California Legacy Project, 2004.
[12] See Table 4 in the Appendix.
[13] See Table 5 in the Appendix.
[14] See Table 6 in the Appendix. All of the DEIR's urbanization projections for the HST alternative are for a "base case" in which all stations would be located in downtowns rather than outlying rural and suburban areas. It acknowledges that outlying stations, which are proposed as an alternative, would weaken the attraction of the stations for higher density development, resulting in even greater urbanization of land. (DEIR, p. 5-21) However, it makes no attempt to calculate the increased amount of land likely to be urbanized under the outlying stations alternative.
[15] See Table 7 in the Appendix.

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the most inefficient use of land from the standpoint of both providing urban services or conserving agricultural land.

A study recently done by AFT, *Ranchettes: The Subtle Sprawl, A Study of rural Residential Development in California's Central Valley* (2000), identified 42,690 developed parcels of land averaging 5 acres and totaling 214,000 acres in 13 Central Valley counties (including Placer and Solano as well as the 10 studied by the DEIR). The estimated population living on these parcels was 139,500 or a mere 0.65 people per acre.[16]

If we assume that the same percentage of the population in the Valley will continue to live in rural areas, and apply the density of current ranchette development to the population increase projected by the DEIR, the amount of land "urbanized" by 2035 would be about 674,000 acres.[17] (This is only about a third of the land now zoned for ranchettes!) If, to correct for over-counting, the 1990-2000 density of development is applied only to the urban population (89% of the total population), the additional acreage urbanized would be about 502,000. Adding these figures yields a total of 1,179,000 acres likely to be urbanized, developed or removed from agricultural production under the HST alternative – 2 ½ times what the DEIR predicts. Considering that there are only about 5 million acres of irrigated farmland in the 10 Central Valley counties studied, such a loss could be devastating to agriculture in the region, the more so if development is scattered throughout the region.[18]

In summary, the DEIR presents a far more optimistic picture of the efficiency of future development – and the loss of farmland – in the Central Valley than both actual trends and future county plans suggest.

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Summary Comparison of Land Urbanization Projections

Source	Gross Density (People per Acre)	Acres Urbanized 2002-2035
(a) DEIR/CSI	8.7 for entire population	447,995
(b) 1990-2000 DOF/FMMP	7.4 for entire population	561,681
(c) 1990-2000 DOF/FMMP	7.4 for urban population	502,469
(d) AFT Ranchette Study	0.65 for rural population	673,930
Sum of (c) and (d)	3.5 for combined population	1,179,400

Indeed, the DEIR's estimate of urbanization more closely approximates the hopeful, "compact growth" scenario, rather than "business as usual," envisioned in a 1995 AFT study of future development in the Central Valley. That study found that, using current

[16] See Table 8 in the Appendix.
[17] See Table 9 in the Appendix. Not to overstate the case, we do not have enough information to determine how much of this land might be cropland in the Central Valley proper rather than in the Sierra or Coast Range foothills.
[18] See Table 10 in the Appendix for Central Valley agricultural statistics.

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densities in the Valley (7.9 people per acre – deliberately erring on the conservative side) and DOF population projections, 1,035,477 acres of land would be developed by the year 2040. The "compact growth" scenario assumed higher densities (~ 17 people per acre) to reduce the loss to 474,370 acres.[19] Nearly a decade has passed since that study and, despite the DEIR's rosy assumptions, there is little evidence to suggest that more compact, efficient growth has or will become the norm in the Valley.

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Potential Disruption of Agricultural Production by HST and Induced Growth

There are several sources of potential disruption of agricultural production that could be associated with HST, beyond the loss of farmland: conflicts between new development and agriculture, severance of farm parcels and agricultural transportation routes, and competition for irrigation water. Together, they could have an impact on agriculture as significant as the loss of farmland itself. But the DEIR fails to consider any of them.

The 1995 AFT *Alternatives* study calculated that, under the "business as usual" scenario, in addition to the one million acres of farmland that would be urbanized in the Central Valley, as much as 2.5 million additional acres of farmland could be affected by potential conflicts with that development. This was based on a buffer zone around developed areas within which the conduct of routine agricultural operations could result in noise, odors, dust, chemical drift and other harmful or annoying spillover effects. These conflicts are well-documented and have led to the adoption of "right to farm" laws in nearly every state, including California, in a not-so-successful attempt to protect agricultural operators from nuisance lawsuits and liability.[20] The DEIR does not consider this additional source of interference with agricultural production in the Central Valley.

The DEIR does raise the issue of the severance of existing farms by the high speed right-of-way itself. (DEIR, p. 3.8-14) But it defers an attempt to quantify the number of farms and acreage that would be affected until specific station sites and route alignments are chosen. This omission seems curious in view of the fact that the DEIR does quantify the acreage of farmland that the right-of-way would directly remove from agriculture. (DEIR, Table 3.8-1, p. 3.8-10) The severance of farms is, therefore, a huge unknown that could have consequences for agriculture well beyond the actual conversion of land to development. Moreover, the DEIR fails to consider the potential for the right-of-way to sever transportation routes over which are moved farm equipment as well as shipments of production inputs and crops. This, too, could dramatically affect agricultural operations and/or result in significantly increased costs associated with mitigation measures such as elevating the rail line, and building underpasses and overpasses.

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Finally, the DEIR fails to consider the impact that increased demand for water to supply new development would have on irrigated agriculture and the viability of farmland in the

[19] E. Thompson, T. Bradshaw, B. Muller and D. Strong, *Alternatives for Future Urban Growth in California's Central Valley: The Bottom Line for Agriculture and Taxpayers*, Table 3, p. 8.
[20] See, e.g., E. Thompson, *Case Studies in Agricultural-Suburban Land Use Conflict*, 1982 ZONING & PLANNING LAW HANDBOOK 297; E. Thompson, *Right to Farm Laws*, 1983 ZONING & PLANNING LAW HANDBOOK 207.

Central Valley. Eighty-six percent of the cropland in the 10 studied Central Valley counties is irrigated, accounting for most of the $13 billion in agricultural commodities – half of California's total output – produced there annually.[21] Thus, water is as essential as land to Central Valley agriculture. A significant increase in the Valley's population, whether caused by HST or not, will consume an enormous amount of water and have an equally significant impact on agriculture. Yet, the DEIR's section on the impact of HST on hydrology and water resources is limited to construction of the rail line itself as it affects "encroachment on or location in a floodplain, potential impacts on water quality, potential increased/decreased runoff and stormwater discharge due to changes in the amount of paved surfaces, potentially increased or decreased contribution of nonpoint-source contamination from automobiles, and potential impacts on groundwater from dewatering or reduction of groundwater recharge." (DEIR, p. 3.14-8) This is a major limitation that grossly understates the impact of HST induced-growth on agriculture.

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Mitigation

Assuming that HST will, indeed, cause more development in the Central Valley than would otherwise occur – and, the DEIR's obscure economic models notwithstanding, it is hard to believe it will not – serious mitigation measures would seem to be required to prevent it from consuming an excessive amount of farmland and possibly crippling the agriculture industry. The DEIR suggests a number of mitigation strategies, including aligning the HST route to avoid the most productive farmland and the acquisition of conservation easements with mitigation fees, but does not meaningfully examine them. (DEIR, p. 3.8-18) We encourage the Authority to do so.

Another, more promising mitigation strategy is suggested by the Authority's consultant CSI, whose report says that HST "provides a potent tool for encouraging more compact development patterns" and notes that there should be "synergistic opportunities to combine [HST] with regulatory based development strategies that could limit land consumption in many counties to well below that needed for the other … alternatives." (CSI, pp. 1-7, 1-10)

CSI further suggests that "regulatory-style efforts by cities to encourage increased density and a mix of land uses near rail stations have been effective," noting that such land use patterns have emerged around the French and Japanese HSR stations. (CSI does not, however, compare the land use policies in France and Japan with those in California generally or the Central Valley specifically.) It also notes that "other [U.S.] jurisdictions have had some success in implementing more aggressive and regionwide regulatory-style strategies" such as "urban growth boundaries, maximum parking requirements, jobs housing balance, more diversity of land uses, higher densities [and] higher service levels of mass transit." (CSI, p. 1-8)

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The DEIR seems to suggest that densification of development will somehow automatically occur as HST acts as a magnet for business and ultimately people. But other studies of new transit stations and development patterns have concluded, for

[21] See Table 10 in the Appendix.

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example, that "land use benefits from investments in rail transit are not automatic. Rail transit can contribute to positive change, but rarely creates change by itself. The hardware needs the software – supportive land use policies such as density bonuses and ancillary infrastructure improvements – if it is to reap significant dividends."[22]

An alternative that explicitly links HST with the adoption of stronger state and local land use plans and policies, designed to encourage more compact growth and a reduction of farmland loss, is a mitigation strategy that should be examined in closer detail. It is relevant to the future of the Central Valley and its agriculture whether or not the DEIR is correct about the marginal impact of HST on population. Indeed, if HST is never built, the opportunity to use it as a magnet for more compact development will be lost, making more effective land use policies all the more important.

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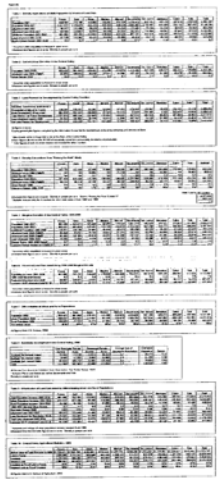

Conclusions

The DEIR for the proposed high speed train system raises serious questions about the impact of growth and development on Central Valley farmland and agriculture. The principal issue is not the extent to which a "bullet" train will induce additional growth, but whether the growth that is sure to occur in the Valley, as California's coastal areas become more crowded, is appropriately managed.

American Farmland Trust's highest priority in California is to work with state and local policymakers – including the High Speed Rail Authority – and the agriculture community to assure that the loss of the state's best farmland to development is minimized. As we said in our testimony to the Authority last March, "The proposed high speed train system could be one of the best things ever to happen in California – or one of the worst. It could harness tremendous civic enthusiasm to build diverse, efficient, livable communities in the midst of a living landscape of sustainable agriculture and a healthy environment. But without a comparable effort to harness the development it will attract, the system could be a 'train wreck' for agriculture, for the environment and for every Californian who will end up paying the bill for sprawl. If we marry the excitement of high-speed rail and the responsibility of smart growth – and only if we do so – we will avoid the 'train wreck' and build a better California where our freeways are less congested, our skies are less crowded, our environment is cleaner, our housing is more affordable and our agriculture can still be counted on to feed America and the world."

Respectfully,

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AFT gratefully acknowledges the contributions of Professor Alvin Sokolow, and graduate students John Speka and Evan Schmidt, at U.C. Davis, in compiling and analyzing population, land development and county plan data for this critique.

[22] J. Landis and R. Cervero, Access No. 14, University of California Transportation Center, Spring 1999, p. 15.

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Appendix

Table 1 - Density Implications of DEIR Population & Urbanized Land Data

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Population 2002	839,582	712,198	132,092	135,695	224,709	1,269,423	607,331	485,123	397,616	170,518	4,964,287
Population 2035 HST	1,441,577	1,479,979	245,131	315,340	449,329	2,061,967	1,164,907	934,388	763,163	282,497	9,138,284
Urbanized Land 2002	96,977	111,468	29,479	23,255	31,712	157,101	74,250	55,426	48,656	28,342	654,666
Urbanized Land 2035 HST	189,503	226,851	44,910	45,329	57,212	202,471	137,960	93,562	97,841	37,022	1,132,661
Additional Population 2002-2035	601,995	767,781	113,045	179,645	224,620	802,544	557,576	449,265	365,547	111,979	4,173,997
Land Urbanized 2002-2035	92,526	115,383	15,431	22,074	25,500	45,370	63,710	38,136	49,185	10,680	**477,995**
Implied Urban Density 2002-2035*	6.5	6.7	7.3	8.1	8.8	17.7	8.8	11.8	7.4	10.5	**8.7**

* Assumes entire population is housed in urban areas.
Urbanized land figures are in acres. Density is people per acre.

Table 2 - Current Urban Densities in the Central Valley

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Population 2000 (DOF)	803,401	661,645	129,461	123,109	210,876	1,223,499	567,798	449,777	369,355	168,660	4,707,581
Urbanized Land 2000 (FMMP)	97,002	106,955	28,939	23,071	31,596	157,157	74,150	51,380	49,378	25,939	645,567
Urban Density 2000*	8.3	6.2	4.5	5.3	6.7	7.8	7.7	8.8	7.5	6.5	**7.3**

* Assumes entire population is housed in urban areas.
Urbanized land figures are in acres. Density is people per acre.

Table 3 - Land Planned for Development by Central Valley Counties

	Fresno	Kern#	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo**	Total
Industrial, Commercial, Institutional & Residential on lots up to 2 acres	139,595	228,707	61,597	53,304	57,353	179,689	128,667	78,520	109,437	31,218	1,068,087
Rural Residential 2-20 acre lots*	881,920	257,447	160,043	77,247	51,312	77,825	335,362	2,333	352,423	13,619	2,209,530
Total Planned for Future Development	1,021,515	486,154	221,640	130,551	108,665	257,514	464,029	80,852	461,860	44,837	3,277,617
Less Urbanized Land in 2000	97,002	106,955	28,939	23,071	31,596	157,157	74,150	51,380	49,378	25,939	645,567
Net Land Planned for Development	924,513	379,199	192,701	107,480	77,069	100,357	389,879	29,472	412,482	18,898	**2,632,050**

All figures in acres.
County general plan figures compiled by the Information Center for the Environment (ICE) at the University of California at Davis.

* May include some acreage that is not on the floor of the Central Valley.
# Kern figures do not include 93,000 of industrially zoned land presumably devoted to oil production.
** Yolo figures include an urban reserve not included for other counties.

Table 4 - Density Calculations from "Raising the Roof" Study

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Subtotal*
Population 1984 (DOF)	563,700	463,400	81,000	71,900	150,200	861,400	393,300	291,800	270,900	119,600	642,600
Urbanized acres 1984 (FMMP)	NA	NA	16,003	NA	21,148	NA	NA	40,804	NA	20,857	98,812
Urban Density 1984	NA	NA	5.1	NA	7.1	NA	NA	7.2	NA	5.7	6.5
Population 1996 (DOF)	761,900	620,400	115,300	108,300	198,400	1,124,900	528,900	418,100	351,700	151,700	681,500
Urbanized acres 1996 (FMMP)	89,234	95,219	27,158	22,437	30,156	146,958	69,792	49,175	46,621	24,542	131,031
Urban Density 1996	8.5	6.4	4.2	4.8	6.6	7.7	7.6	8.5	7.5	6.2	6.7
Change in Density 1984-1996	NA	NA	-17%	NA	-7%	NA	NA	18%	NA	8%	3%

Urbanized land figures are in acres. Density is people per acre. Source: Raising the Roof, Exhibit 17.
* Subtotal includes only the 4 counties for which data exists in both 1984 and 1996.

1996 Total for All Counties
4,377,500
602,292
7.3

Table 5 - Marginal Densities in the Central Valley, 1990-2000

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Population 1990 (DOF)	667,490	543,477	101,469	88,090	178,403	1,041,219	480,628	370,522	311,921	141,092	3,924,311
Population 2000 (DOF)	803,401	661,645	129,461	123,109	210,876	1,223,499	567,798	449,777	369,355	168,660	4,707,581
Additional Population 1990-2000	135,911	118,168	27,992	35,019	32,473	182,280	87,170	79,255	57,434	27,568	783,270
Urbanized Land 1990 (FMMP)	81,409	84,021	25,700	19,841	21,374	137,374	63,760	44,966	39,304	22,426	540,165
Urbanized Land 2000 (FMMP)	97,002	106,955	28,939	23,071	31,596	157,157	74,150	51,380	49,378	25,939	645,567
Land Urbanized 1990-2000	15,593	22,934	3,239	3,230	10,222	19,783	10,390	6,424	10,074	3,513	105,402
Density During 1990-2000 Period*	8.7	5.2	8.6	10.8	3.2	9.2	8.4	12.3	5.7	7.8	**7.4**
Compare Density Implied by CSI/DEIR	6.5	6.7	7.3	8.1	8.8	17.7	8.8	11.8	7.4	10.5	**8.7**

* Assumes entire population is housed in urban areas.
Urbanized land figures are in acres. Density is people per acre.

Comment Letter O047 Continued

Table 6 - Urbanized Land Calculated Using 1990-2000 Marginal Density

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Population Increase 2002-2035	601,995	767,781	113,046	179,545	224,620	802,544	557,576	449,265	365,547	111,979	4,173,997
1990-2000 Marginal Density	8.7	5.2	8.6	10.8	3.2	9.2	8.4	12.3	5.7	7.8	7.4
Projected Urbanized Land 2035*	69,067	149,011	13,081	16,570	70,707	87,101	66,459	36,415	64,117	14,270	**561,681**
Compare DEIR Urbanized Land 02-35	92,526	115,383	15,431	22,074	25,500	45,370	63,710	38,136	49,185	10,680	**477,995**

* Assumes entire population is housed in urban areas.
Urbanized land figures are in acres. Density is people per acre.

Table 7 - Differentiation of Urban and Rural Populations

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Population 2000	803,401	661,645	129,461	123,109	210,876	1,223,499	567,798	449,777	369,355	168,660	4,707,581
Urban Population 2000	696,821	583,841	112,687	81,245	174,810	1,193,703	507,534	407,092	298,726	152,851	4,211,316
Rural Population 2000	100,580	77,804	16,774	41,864	35,744	29,796	56,964	39,905	69,295	15,809	483,635
Percentage Urban	87%	88%	87%	66%	83%	98%	89%	91%	81%	91%	89%

All figures from U.S. Census, 2000.

Table 8 - Ranchette Development in the Central Valley, 2000

	Total Ranchette Parcels		Developed Parcels		Average Size of Developed Ranchettes	Estimated Population	Density
	Number	Acres	Number	Acres			
Southern Sacramento Valley*	23,685	112,518	11,014	56,240	5.1	29,400	0.52
Northern San Joaquin Valley	8,680	41,702	6,992	31,960	4.6	31,200	0.98
Southern San Joaquin Valley	82,624	409,743	24,584	125,459	5.1	78,900	0.63
Total	114,989	563,963	42,590	213,659	5.0	139,500	0.65

All figures from American Farmland Trust, Ranchettes: The Subtle Sprawl, 2000.
* Includes Placer and Solano as well as Sacramento and Yolo.
Density in people per acre.

Table 9 - Urbanization of Land Calculated by Differentiating Urban and Rural Populations

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Total Population Increase 2002-2035	601,995	767,781	113,046	179,545	224,620	802,544	557,576	449,265	365,547	111,979	4,173,997
Urban Population Increase 2002-2035*	523,637	677,496	98,398	118,556	186,203	783,000	498,397	406,629	295,646	101,483	3,733,981
Rural Population Increase 2002-2035*	78,358	90,285	14,647	61,089	38,417	19,544	59,179	42,636	69,901	10,496	440,016
1990-2000 Marginal Urban Density	8.7	5.2	8.6	10.8	3.2	9.2	8.4	12.3	5.7	7.8	7.4
Ranchette Density 2000	0.63	0.63	0.63	0.63	0.96	0.52	0.96	0.96	0.63	0.52	0.65
Urbanized Land 2002-2035	60,077	131,488	11,386	10,935	58,614	84,980	59,405	32,969	51,857	12,932	**502,469**
Land Developed for Ranchettes 02-35	124,597	143,562	23,290	97,138	39,142	37,387	60,621	43,675	111,149	20,078	**673,930**
Total Land Urbanized 2002-2035	184,674	275,050	34,676	108,073	97,966	122,367	120,026	76,634	163,006	33,010	**1,176,400**
Compare DEIR Urbanized Land 02-35	92,526	115,383	15,431	22,074	25,500	45,370	63,710	38,136	49,185	10,680	**477,995**

* Assumes percentage of urban population remains constant from 1990.
Urbanized land and ranchette figures are in acres. Density is people per acre.

Table 10 - Central Valley Agricultural Statistics, 2002

	Fresno	Kern	Kings	Madera	Merced	Sacramento	San Joaquin	Stanislaus	Tulare	Yolo	Total
Market Value of Farm Products (x1000)	$2,759,421	$2,058,705	$793,061	$710,433	$1,409,254	$239,266	$1,222,454	$1,226,607	$2,338,577	$315,482	$13,073,260
Land in Farms	1,928,885	2,731,341	645,598	682,486	1,006,127	314,317	612,629	789,853	1,393,456	550,407	10,855,099
Cropland	1,229,545	998,297	499,919	362,055	593,347	161,033	574,752	408,248	770,484	370,844	5,968,534
Irrigated Land	1,098,941	811,672	407,031	317,241	518,536	124,931	520,172	401,439	652,385	298,670	5,151,020
Cropland as Pct of Land in Farms	64%	37%	77%	53%	59%	51%	71%	52%	55%	67%	55%
Irrigated Land as Pct of Cropland	89%	81%	81%	88%	87%	78%	91%	98%	85%	81%	**86%**

All figures from U.S. Census of Agriculture, 2002

Response to Comments of Edward Thompson Jr., California Director, American Farmland Trust, August 31, 2004 (Letter O047)

O047-1

The co-lead agencies agree with the commenter that Central Valley population is poised for substantial future growth with or without HST service. We also agree that a substantial portion of this growth is driven by the disparity in housing prices between Coastal California and the Central Valley, and that large numbers of Central Valley residents currently commute to jobs in the Bay Area and Southern California and will continue to do so in the future (although these numbers are not large when compared to the number of passengers that could be served by the proposed HST system).

We disagree, however, on the effect that HST service is likely to have on this phenomenon, and with the commenter's assertions that HST service will make a daily commute "much easier", that the growth inducement potential of HST was under predicted, or that the methodology and conclusions included in the Draft Program EIR/EIS were not clearly documented. The growth inducement analysis estimated the likely population shifts due to the accessibility benefits conferred by each system alternative, considering issues such as differential housing costs and the door-to-door time/cost for using each system alternative to commute from the Central Valley to either Southern California or the San Francisco Bay Area.

Section 5 of the Draft Program EIR/EIS and the technical report cited by the commenter both provide substantial detail on the background data, assumptions, and analytical methods and models that were used in the analysis. In particular, Section 5.3.1 of the Draft Program EIR/EIS identifies that the population and employment conclusions were reached through an integrated process that used population forecasts from the Department of Finance, employment forecasts from Caltrans and Woods and Poole, the Authority's intercity travel demand model, the REMI economic impact model, and an additional business attraction model. Page 5-6 of the Draft Program EIR/EIS indicates that the integrated process fully assesses the potential "shift in residential population between counties (with fixed employment location) due to changed accessibility because of the Modal or HST Alternative (i.e. long-distance commuting)". The data collection assumptions and analyses contained in the Program EIR/EIS are adequate and appropriate for this program-level review.

The commenter's suggestion or expectation that HST service would bring "virtually the entire San Joaquin Valley with easy commuting distance of the Bay Area and much of Southern California" is factually incorrect. The commenter states that it would be possible for people to travel from Fresno to Los Angeles "in about an hour", but a citation for this travel time estimate is not provided. The Authority's Business Plan indicates that an express travel time between Fresno and Los Angeles Union Station would be at least 95 minutes[1]. Furthermore, this travel time value is strictly an "in-vehicle" time; it does not include the substantial time needed to access an HST station from home, park a car and walk to the station, buy a ticket, walk through the stations at the origin and destination ends, wait for a train, and travel from an HST station to the final destination. Indeed, the Authority's travel model used for this analysis showed that this "out-of-vehicle" travel time would be an additional 95 minutes, on average, for a trip from Fresno County to Los Angeles County; similar out-of-vehicle travel times exist for other travel markets. Therefore, the true door-to-door travel time between Fresno and Los Angeles is over 3 hours, which is substantially higher than the one hour claimed by the commenter.

Quite clearly, egress from an HST station to an actual employment location will be a major impediment (but not necessarily the only one) for use of HST as a daily commute option by large numbers of workers. The HST system will have a very limited number of stations in the Bay Area and Southern California, requiring that users

[1] *Building a High-Speed Train System for California – Final Business Plan*; June 2000; Page 59.

transfer to another transit mode to access any employment site that is beyond walking distance from one of the HST stations. An analysis prepared for the I-580 BART to Livermore Study[2] showed that only 30% of job destinations in the Bay Area for Altamont Pass commuters would be accessible via BART and local transit (only 4% are within walking distance of a BART station).

In terms of travel costs, some households located in close proximity of an HST station might be able to use HST as an alternative to owning a second (or third) car if an HST station is located in close proximity to their job. For many households, however, a second (or third) car is still needed for access/egress at the origin end. Once a vehicle is owned, its major expenses (i.e., initial cost and depreciation) cannot be significantly reduced by leaving it at an HST station rather than driving it all the way to work. If commuters face high parking costs at their destination, then travel costs tilt in favor of HST. However, outside of the handful of urban centers, free and abundant parking is common. Thus commuting on HSR merely adds fare costs to household expenses rather than substitute for the cost of owning a second (or third) car.

The analysis results in the Draft Program EIR/EIS accurately reflect the role that: a) a limited number of HST stations; b) the limited number of jobs that are within walking distance of potential HST stations; c) the relatively limited access to job sites via a transfer to local transit; and d) the availability of abundant free parking at suburban job sites will have on limiting the potential growth in long-distance commuting for the HST Alternative. These results are further validated by the large growth projections in the Central Valley for the No-Project and Modal Alternatives. Taken together, the results accurately portray the reality that long-distance commuting is currently occurring out of the Central Valley and will accelerate at roughly the same level under any of the system alternatives.

[2] *I-580 Bart to Livermore Study – Final Report*; Cambridge Systematics, Inc.; July 2002; page 6-8.

We disagree with the commenter's assertion that the Draft Program EIR/EIS claims that the extent of long-distance commuting from the Central Valley "would be reversed or mitigated after HST service [is initiated]". No such conclusion is reached in the Draft Program EIR/EIS. Indeed, the Draft Program EIR/EIS indicates (page 5-14) that Merced County will have one of the highest population growth rates under the HST Alternative. This population growth is related to a shift in relative accessibility among Central Valley counties that happens with the HST Alternative. Some of the housing growth for Bay Area workers that would otherwise occur in San Joaquin or Stanislaus Counties under the No Project or Modal Alternatives is shifted to Merced County under the HST Alternative. The reason that there is no net growth in addition to the internal shift is that the HST Alternative, contrary to the commenter's assertion, does not "make the commute much easier". The accessibility barriers that exist between Northern Central Valley housing and Bay Area jobs is largely overcome with the highway improvements included in the No Project Alternative. This result means that the Central Valley is an attractive housing location for Bay Area and Southern California job seekers under all system alternatives. Simply put, the HST Alternative is not expected to lead to a significant increase in commute accessibility between Central Valley homes and Bay Area or Southern California jobs.

The commenter quotes from Page H-4 of the technical report in questioning the population distribution projections. However, the quote actually refers to influences on densification and development patterns, not to influences on net population growth or distribution among the counties. The population distribution projections are overwhelmingly influenced by the baseline projections provided by the Department of Finance. Any margin of error within these baseline projections would equally affect the population distribution projections for each system alternative. The Draft Program EIR/EIS states (page 5-35) that the baseline projections "rely on many assumptions related to future conditions and are subject to the same uncertainties as any other long-range forecast," and presents a sensitivity analysis of structural changes within these baseline

forecasts. This sensitivity analysis provides the discussion of "margin of error" requested by the commenter.

O047-2

Recognizing that analysis assumptions such as development densities are important considerations in assessing potential growth impacts, the Draft Program EIR/EIS analysis used consistent density assumptions to assess each system alternative. These development assumptions were taken from the CURBA model; the infill and density models within CURBA were validated during development of the 2001 California State Housing Plan[3].

The co-lead agencies agree that the future development densities found through the CURBA model are higher than the historical average and marginal densities reported in the California State Housing Plan. These higher residential densities, which were developed and applied consistently for all system alternatives, arise for a number a reasons:

- Contrary to the commenter's claims, the vast majority of population growth within the Central Valley has been and will continue to be accommodated in urbanized areas;
- As noted in Table 3 in the commenter's submittal, very little undeveloped land is still zoned and available for development at urbanized densities; and,
- Several areas have moved aggressively in the last few years to encourage or require that future development occur at higher densities.

Looking further at the issue of future growth in rural versus urban areas, U.S. Census data (Table 1) indicates that non-urbanized areas in the ten Central Valley counties considered in this analysis lost population during the 1990s. In fact, rural population (including ranchette development) decreased in eight of the ten counties, with overall rural population decreasing by nearly 100,000 people in the 1990s. Population within "other urban areas" (i.e. areas that are neither rural nor urbanized) also decreased in the six of the ten counties and showed a net decrease across all ten counties. The Census data clearly shows that population growth during the 1990s occurred overwhelmingly in urbanized areas, and there is no reason to believe that this trend will not continue into the future.

In terms of the availability of developable land, the commenter asserts in (Table 3 in Appendix to comments) that over 2.6 million acres of land is planned for development in the ten counties. However, this same table shows that over 2.2 million acres of this land is zoned for rural development, leaving only 400,000 acres as currently planned for urban and urbanized development. Clearly, planned and zoned land to accommodate population growth at urbanized densities is much more scarce than the commenter asserts. Nonetheless, the analysis undertaken for the Draft Program EIR/EIS was not limited to the 400,000 acres that were noted in the commenter's Table 3. In fact, the CURBA model was run by assuming that over 4.4 million acres of land was potentially developable within the ten Central Valley Counties[4].

In terms of governmental actions aimed at increasing residential densities in the Central Valley, Yolo and Stanislaus Counties have specific policies and actions within their general plans that focus on preservation of agricultural land. Also, the Sacramento Area Council of Governments (SACOG) recently adopted a Blueprint Scenario to guide development over the next 50 years. The Blueprint Scenario, when implemented by the SACOG's member jurisdictions, would be expected to direct a significant portion of new development to reinvestment, would nearly double the amount of residential

[3] *Raising the Roof- California Housing Development Projections and Constraints 1997-2020*.

[4] Includes all developable and accessible sites excluding wetlands, prime and unique farmlands, and Q3 floodzones. See Exhibit 13 in *Raising the Roof- California Housing Development Projections and Constraints 1997-2020*.

development occurring as attached or small-lot single family homes, and would decrease the growth in the urbanized area by over 228,000 acres as compared to a base case scenario.

As noted earlier, the future development densities found through the CURBA model are higher than historical average or marginal densities in the Central Valley. Many places in California have initially developed at lower densities, but these development densities have increased with job growth and decreases in the amount of developable land. For example, Census 2000 reported that the Los Angeles and San Francisco urbanized areas have population densities of nearly 11 people per acre, which is substantially higher than the 8.7 people per acre asserted by the commenter. There is no reason to believe that this historical pattern towards increased densification will not continue and spread to the Central Valley's major urbanized areas as growth accelerates in the future. The overall average density for the Central Valley (8.7 people per acre), which as noted by the commenter is about 18 percent higher than the 1990 average, is not high by California standards, particularly since many Central Valley cities were initially built at extremely low densities and skipped over a great deal of currently vacant land that was taken out of farming and declared "urban" in the FMMP data. Furthermore, given that densities were applied equally across all system alternatives, use of the densities asserted by the commenter would lead to no overall difference in relative growth patterns between alternatives since the change in density assumptions would affect all system alternatives equally.

The default CURBA assumptions were only modified for two isolated situations in the HST Alternative:

1. For employment densities in a one-mile band around each proposed HST station, as noted in Table G.2 of the technical report; and,

2. For population growth within a one-mile band around each proposed HST station. This effect was modeled by slightly increasing the "effective infill rate" for new residential development in several Central Valley counties, as shown below in Table 2.

These two modifications were developed based upon consideration of relevant research[5] and a careful review of development experience around high activity intercity rail stations in the United States, Japan and Europe. Details from this review can be found in Section 3.3 of the technical report on economic growth effects.[6] These very modest development intensification assumed for the HST alternative was based on market forces observed after the introduction of high-speed type rail services in the U.S. and overseas, and assume no regulatory intervention. The assumed development intensification reflects a reasonable expectation of market adjustments after 30+ years of potential growth.

The commenter asserts that a substantial percentage of the overall future Central Valley population growth will occur in rural areas. However, as shown in Table 1, this assertion is not supported by population changes in the 1990s. Furthermore, even if the commenter's assertions were true, there is no evidence to suggest that the HST Alternative would lead to substantially higher rural population growth than the other system alternatives. Indeed, several factors suggest that the HST Alternative would have, at most, little or no effect on the extent of rural ranchette development:

- As noted by the commenter, Bay Area and Southern California workers are attracted to the low-cost of Central Valley housing. However, rural large-lot housing is quite expensive, even in the Central Valley, thus destroying the housing cost advantage that

[5] See, for example: Cervero, Robert and M. Bernick; *Transit Villages in the 21st Century*; McGraw-Hill, 1997; and Cervero, Robert et al; *Land-Use and Development Impacts of BART, BART at 20 Study*; IURD, Monograph 49; 1995.

[6] *Economic Growth Effects of the System Alternatives for the Program Environmental Impact Report/Environmental Impact Statement – Final Report*; Cambridge Systematics, Inc.; July 2003. This report is available from the High-Speed Rail Authority, and has been posted on the HSRA website since March 29, 2004.

the vast majority of long-distance commuters seek in the Central Valley.

- To the degree, if any at all, that the HST alternative may make some long-distance commuting more feasible, it will further drive up the cost of land, which in turns leads to even smaller lot sizes.
- It is unlikely that a significant number of rural ranchettes would be located within a reasonable driving distance of an HST station. Individuals living in outlying ranchettes would be unlikely to use HST on a daily basis due to the relatively long station access time compared to people residing within an urbanized area near an HST station. The long station access time required for a low density ranchette would offset the line haul travel time benefit of an HST Alternative.
- The HST Alternative does nothing to affect several important factors, such as school quality or a community's perceived quality of life or municipal services and infrastructure, that are integral to an individual's home buying decisions.

O047-3

The Authority and FRA have focused the central valley alignment options within or adjacent to existing transportation corridors in large part to avoid potential impacts and potential severance of farmland properties. The alignment options identified as preferred have greatly minimized potential severance impacts through maximizing the use of existing transportation corridors. While quantification of potential area of farmland impact is appropriate at the program level through GIS analysis, analysis of potential severance issues would require parcel specific details related to alignments, identification of property boundaries, and analysis of existing access facilities, all of which is more appropriate at the subsequent project level of detail.

Please see standard response 5.2.3 for issues related to water supply for new development. Please also refer to Chapter 6B of the Final Program EIR/EIS that discusses transit-oriented development measures and development around potential HST station sites.

O047-4

Please see standard response 5.2.1 for issues related to mitigation of significant indirect impacts.

Table 1 – 1990 to 2000 Population Change in Central Valley Counties

County	Population Change 1990-2000			
	Total Population	Urbanized Areas	Other Urban Areas	Rural Areas
Fresno	131,917	101,455	42,966	(12,504)
Kern	118,168	93,520	35,358	(10,710)
Kings	27,992	-	41,951	(13,959)
Madera	35,019	58,107	(25,625)	2,537
Merced	32,151	53,450	(13,389)	(7,910)
Sacramento	182,280	197,013	(10,113)	(4,620)
San Joaquin	82,970	179,732	(85,620)	(11,142)
Stanislaus	76,475	131,992	(42,715)	(12,802)
Tulare	56,100	96,711	(12,301)	(28,310)
Yolo	27,568	15,809	11,223	536
Central Valley Total	770,640	927,789	(58,265)	(98,884)

Source: American Fact Finder; U.S. Census Bureau; Census 2000 Summary File 1, Table P2 and Census 1990 Summary Tape File 1, Table P004.

Table 2 – Effective Infill Rates Developed in CURBA Model for Central Valley Counties

County	Percent of Total Population and Employment Growth Occurring as Infill Development			
	Between 2002 and 2020		Between 2020 and 2035	
	No Project & Modal Alternatives	HST Alternative	No Project & Modal Alternatives	HST Alternative
Fresno	11.0%	11.1%	14.0%	14.3%
Kern	11.1%	11.2%	14.0%	14.3%
Kings	14.0%	14.0%	17.0%	17.0%
Madera	10.0%	10.0%	14.0%	14.0%
Merced	14.0%	14.1%	16.0%	16.3%
San Joaquin	18.0%	18.2%	24.0%	24.5%
Stanislaus	45.0%	45.5%	14.5%	14.8%
Tulare	13.0%	13.1%	15.0%	15.3%
Yolo	40.0%	40.0%	20.3%	20.3%

Comment Letter O048

08/31/04 13:57 ☎510 238 4397 GOV. & PUB. AFF 001/004

NATIONAL RAILROAD PASSENGER CORPORATION

Amtrak Strategic Planning
530 Water Street, 5th Floor, Oakland, CA 94607
Tel. 510.238.4350

O048

AMTRAK

AUG 31 2004

Date	August 31, 2004	From	Liz O'Donoghue
To	High Speed Rail Authority	Department	Amtrak Planning
Company		Subject	Draft PEIS/EIR Comments
Fax Number	(916) 322-0827	Number of Pages	4

Message

Attached are comments to the Draft PEIS/EIR.

Thank you.

08/31/04 13:57 ☎510 238 4397 GOV. & PUB. AFF 002/004

NATIONAL RAILROAD PASSENGER CORPORATION
530 Water Street, Oakland, CA 94607

AMTRAK

August 31, 2004

Mehdi Morshed
Executive Director
California High-Speed Rail Authority
925 L Street, Suite 1425
Sacramento, CA 95814

Attn: California High-Speed Train
Draft Program EIR/EIS Comments

Dear Mr. Morshed:

Thank you for the opportunity to comment on the Draft Program EIR/EIS for the proposed high-speed train system for intercity travel in California. Please accept these comments on behalf of Amtrak. In addition, Amtrak concurs with the comments submitted by the Capitol Corridor Joint Powers Authority and the LOSSAN Rail Corridor Agency. As Amtrak will be submitting separate comments on the Draft Programmatic EIS for the LOSSAN Corridor, this letter focuses exclusively on the California High Speed Rail Authority's Draft Program EIR/EIS for the statewide system.

In short, Amtrak:

- Supports the purpose and need for the high-speed train system.
- Supports the implementation of the high-speed train system and technology that cooperates with and is compatible with existing and planned intercity rail systems.
- Supports station locations that directly connect with existing and planned intercity and commuter rail stations. O048-1
- Supports substantial improvements to the conventional rail lines for faster, more frequent and reliable service as indicated in the Draft California State Rail Plan 2003-04 to 2013-14 and the Amtrak-sponsored California Passenger Rail System 20-Year Improvement Plan (March 2001). The improvements and connections would ensure the greatest mobility and ease of use for passengers.
- Supports the upgrade of the LOSSAN corridor to serve as the preferred route for the Los Angeles – San Diego coast corridor.
- Supports the construction of new right-of-way that will provide a direct connection between Bakersfield and Los Angeles for both Amtrak intercity service as well as the high-speed rail service.
- Supports continued collaboration as the Authority progresses in the planning, engineering, environmental documentation and construction phases, particularly as the implementation of the plan directly affects existing and planned intercity services.

Comment Letter O048 Continued

AMTRAK

General Comments

Amtrak supports the purpose and need for the high-speed train system as presented in the Draft Program EIR/EIS. California's transportation system simply cannot continue to maintain the level of mobility in the next couple of decades given the projected growth in the population and the economy and the ensuing impacts that growth will have on the existing transportation infrastructure, land use, clean air and the environment. Rail travel has demonstrated to be an increasingly important choice of travel for Californians. Intercity corridor ridership continues to grow. The three state-supported services (Pacific Surfliner, Capitol Corridor and San Joaquins) are the second, third and fifth most heavily traveled Amtrak services in the country. Population and economic trends in California support the need to develop transportation systems that will move people, and assist in moving freight quickly, efficiently, safely and as cleanly as possible. O048-2

High-Speed Rail System Needs to be Compatible with Existing and Upgraded System

For years Amtrak has supported the concept of a high-speed rail line, with dedicated, grade-separated track, serving the largest population centers in the state, routed through the Central Valley. A major element of that vision is the upgrade of existing rail corridors for more frequent service and higher average speeds. The four substantially upgraded corridors – Pacific Surfliner, San Joaquin, the California Coast and the Capitols – would connect passengers to the high-speed route, minimizing stops along the spine to allow for top speed.

For a statewide system to capture the largest ridership and work most efficiently, the high-speed rail system must be compatible with the existing and planned conventional intercity rail services, particularly those that are state supported. Conventional and high-speed services would operate in cooperation with planned schedules and operations to maximize ridership and revenue, and provide the greatest ease of use for the passenger. The upgraded Amtrak services that do not directly connect to the high-speed rail line (for example, on the Central Coast) would provide much needed rail service to those communities. O048-3

For these reasons, we support a high-speed rail system that is closely planned with the existing, anticipated and upgraded conventional intercity rail services. We support connections at common intercity and commuter rail stations with the greatest potential of connections to other modes. We support technology that is likely to be compatible with conventional intercity rail. Operationally, we support coordinated schedules.

Existing and Planned Service

Amtrak operates an average of 68 trains a day in California – 58 shorter distance state-supported corridor trains and eight long distance trains. Amtrak also operates over 230 commuter trains a day by contract with three commuter agencies. Amtrak's contracts with commuter agencies vary, but include maintenance of the equipment, maintenance of way, operations and dispatching. O048-4

AMTRAK

Amtrak has worked closely with the state, freight railroads, commuter agencies, regional and local representatives to plan for future intercity rail service. In 2001, Amtrak and its partners released the California Passenger Rail 20-Year Improvement Plan, sponsored by Amtrak but directed by local Task Forces for the Pacific Surfliner, San Joaquin, Capitol Corridor and Coast Corridor. The Plan called for increased service at faster trip times on all services, and the initiation of new corridor service on the Coast Corridor. It addressed a number of specific issues, such as recommending that the new right-of-way through the Tehachapi Mountains for high-speed rail service would also serve as the direct connection for intercity rail service between Bakersfield and Los Angeles. As you know, Amtrak has shared with the Authority much of the data collected through the Plan's development to ensure close cooperation with Amtrak services. O048-4 cont.

Amtrak continues to urge the Authority to ensure that planning and implementation of the high-speed system take into account all future expansions and trip time reductions that are noted in the California Passenger Rail 20-Year Improvement Plan as well as the Caltrans Ten-Year Plan for Intercity Rail.

Thank you for the opportunity to comment. We look forward to working with you on efforts to develop a comprehensive statewide high-speed and conventional intercity rail system.

Sincerely,

Elizabeth O'Donoghue
Principal Officer – Corridor Strategy West

cc: Gil Mallery, Amtrak
Warren Weber, Caltrans

Response to Comments of Liz O'Donoghue, Amtrak Planning, National Railroad Passenger Corporation, August 31, 2004 (Letter O048)

O048-1

Acknowledged.

O048-2

Acknowledged.

O048-3

Acknowledged. The Authority has identified a HST system, which would compliment and have a high level of connectivity with conventional intercity rail services. The Authority concurs that conventional and HST services should coordinate schedules and operations to maximize ridership and revenue, and provide the greatest ease of use for the passenger. However, in order to meet the purpose and need of the HST project, the Authority has identified the HST system must be capable of maximum speeds of at least 200 mph (see Program EIR/EIS pages 2-23, 2-24, 2-27 & 2-28). The Authority has concluded that while the HST system could share tracks at reduced speeds with other services in some heavily urbanized areas, "a completely dedicated train technology using separate track/guideway would be required on the majority of the proposed system" (page 2-28). Heavy, conventional, non-electric intercity services are not compatible with the much faster (220 mph assumed maximum speed) and very frequent HST service where the HST trains are operating at high-speeds. Also, trains crossing the mountain crossings must negotiate steep gradients, up to 3.5%, in order to avoid crossing major faults such as the Garlock and San Andreas in tunnel – which exceed the capabilities of conventional rail equipment.

O048-4

Acknowledged. The Authority and the FRA appreciate Amtrak's cooperation, willingness to share data collected, and participation throughout this program EIR/EIS process. Please see response to Comment O048-3.